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Chapter 1

General Introduction

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General Introduction

Ten years ago, cyberbullying behavior, bullying carried out via electronic media (Smith, 2014, p. 80), was a relatively new phenomenon. However, together with the fast digital developments, the rise of social networking sites and abundant new forms of digital communication, nowadays, only few are unknown with the existence of cyberbullying.

Over the last 10 years, research investigating this topic has accumulated rapidly. At first, the majority of research was descriptive in nature and scholars tried to determine how many children and adolescents were victims of cyberbullying or cyberbullies themselves. Results showed that cyberbullying peaks during adolescence (Tokunaga, 2010) and between 10-40% of adolescents have been a victim of cyberbullying (Kowalski, Giumetti, Schroeder, & Lattanner, 2014). Much research focused on the negative impact of cyberbullying and how victims could cope with it. For example, being victimized through cyberbullying relates to a number of psychosomatic symptoms, such as depression, anxiety, and stress (e.g., Campbell, Spears, Slee, Butler, & Kift, 2012; Gámez-Guadix, Orue, Smith, & Calvete, 2013; Gradinger, Strohmeier, & Spiel, 2009; Wang, Nansel, & Iannotti, 2011), suicidal ideation (e.g., Bauman, Toomey, & Walker, 2013; Hay, Meldrum, & Mann, 2010; Hinduja & Patchin, 2010; Sinclair, Bauman, Poteat, Koenig, & Russell, 2012), and poorer academic achievements (e.g., Kowalski & Limber, 2013; Sinclair et al., 2012). Furthermore, numerous studies showed that having been victimized by offline or online bullying is related to being or becoming a cyberbullying perpetrator (Bauman, 2010; König, Gollwitzer, & Steffgen, 2010; Kowalski, Morgan, & Limber, 2012; Patchin & Hinduja, 2010; Smith et al., 2008; Sontag, Clemans, Graber, & Lyndon, 2010; Wong, Chan, & Cheng, 2014; Wright & Li, 2012, 2013; Ybarra & Mitchell, 2004; Yilmaz, 2011). This relation between being victimized (i.e., being bullied) and becoming a cyberbully is striking because one would assume that these victims understand the impact of being bullied and would not bring others in such an unpleasant situation. Therefore, we investigated the underlying processes that take place in the relationship between victimization and cyberbullying behavior.

In the current dissertation, we provide arguments for a Cyclic Process Model as a framework to investigate the relation between being bullied and becoming a cyberbully oneself. To clarify this relationship, the Cyclic Process Model proposes that victimized adolescents get angry and frustrated, which draws

them to media with antisocial and risk behavior content, further easing the way to become a cyberbully oneself. Thus far, the role of adolescent media use in this chain of events has been understudied. Therefore, our research focused on the role of media use in cyberbullying behavior in particular. In this general introduction, we provide a short overview of the current state of cyberbullying research. Next, the role of media in cyberbullying behavior is discussed and the Cyclic Process Model is introduced.

Prevalence and Definition of Cyberbullying

Prevalence rates of cyberbullying behavior (both victimization and perpetration rates) vary substantially between studies, which are mostly due to a mix of factors (Kowalski et al., 2014; Modecki, Minchin, Harbaugh, Guerra, & Runions, 2014; Smith, 2014).

One factor leading to different prevalence rates is the use of different measurement instruments. For instance, some researchers use a specific time frame when asking their respondents how often they perpetrated acts of cyberbullying (e.g., in the past year or the past six months; Campbell et al., 2012), whereas others do not mention a time reference period and measure "lifetime" victimization (Calvete, Orue, Estévez, Villardón, & Padilla, 2010). Prevalence rates obtained by lifetime measurements are often higher than prevalence rates in which the timeframe was restricted (Kowalski et al., 2014). Furthermore, prevalence rates of cyberbullying are lower in samples where the word "bullying" is used in the measurement instrument (e.g., "how often did you bully someone in the past 2 months?") than in samples where the word "bully" is not used (Kowalski et al., 2014; Modecki et al., 2014). This is possibly due to social desirability in responding to questions (Kowalski et al., 2014) because respondents probably do not want to associate themselves with the term "bully", either as a victim or a perpetrator.

Another factor that affects the prevalence rates is the frequency criterion. Some researchers classify cyberbullying behavior when someone has cyberbullied someone only once, whereas others classify cyberbullying when it occurred on a frequent basis. This frequency criterion is related to repetitiveness. This goes back to the literature on traditional (or offline) bullying, in which three key criteria are defined for bullying behavior: 1) the bully's intention to harm (intentionality); 2) the bullying happened on multiple occasions (repetitiveness); and 3) the victim finds it difficult to defend him/herself (power imbalance) (e.g., Olweus, 2013; Smith, del Barrio, & Tokunaga,

2013). In the last few years, however, the criterion of repetitiveness in view of cyberbullying has been discussed among various scholars (e.g., Dehue, 2013; Langos, 2012; Menesini et al., 2012; Olweus, 2013; Slonje, Smith, & Frisén, 2013; Smith et al., 2013) because online a single act of cyberbullying behavior can last "forever" and lead to ongoing embarrassment. Therefore, some suggest that the criterion of repetitiveness is subsidiary in defining *cyber*bullying behavior (Menesini et al., 2012; Smith et al., 2013), whereas the most important criteria are: 1) the intent to harm, 2) the existence of a specific target, and 3) an imbalance of power between perpetrator and victim (Smith et al., 2013).

We prefer to use the following definition: cyberbullying behavior *"involves the use of ICTs to carry out a series of acts as in the case of direct cyberbullying, or an act as in the case of indirect cyberbullying, intended to harm another (the victim) who cannot easily defend him or herself"* (Langos, 2012, p. 288). Here, intentionality, the existence of a specific target, and the power imbalance are explicitly stated, whereas repetitiveness is only included in direct cyberbullying. Direct cyberbullying involves direct contact between perpetrator and victim. The direct cyberbullying has to occur on repetitive occasions, because it could otherwise be "teasing" or "joking around". On the contrary, indirect cyberbullying occurs when acts of cyberbullying are distributed on, for instance, social networking sites (Langos, 2012). Here, the repetitiveness of the cyberbullying act itself is not a prerequisite, because the cyberbully incidents can stay online forever and seen by many over and over again. Thus, this definition covers the key criteria for bullying behavior and also acknowledges that the act of bullying in cyberspace does not have to occur on multiple occasions to lead to repetitive humiliation.

It is important to know what methodologies and definitions are applied in order to interpret a study's prevalence rates of cyberbullying. Another important factor influencing prevalence rates is age, including developmental stage.

Adolescents' Involvement in Cyberbullying Behavior

In the last five years, various meta-analyses and reviews of the extant research described the state of cyberbullying research (e.g., Hinduja & Patchin, 2012; Kowalski et al., 2014; Modecki et al., 2014; Slonje et al., 2013; Tokunaga, 2010) and reported that between 10-40% of adolescents have been a victim of cyberbullying (Kowalski et al., 2014; 20-40% in Tokunaga, 2010). As for perpetrators of cyberbullying behavior, the average percentages of

cyberbullying perpetration among adolescents are somewhere around 16% and 17% (Hinduja & Patchin, 2012; Modecki et al., 2014). Although some cyberbullying research focused on adults (e.g., in an Australian study among 103 working males, 10.7% had been a victim of cyberbullying; Privitera & Campbell, 2009), the majority of studies focused on children and adolescents. Cyberbullying clearly peaks during adolescence, notably between ages 12 to 14 (Kowalski et al., 2014; Slonje et al., 2013; Tokunaga, 2010). Therefore, we decided to focus our research on cyberbullying behavior among adolescents.

Overall, cyberbullying among adolescents occurs less often than traditional face-to-face (or offline) bullying, yet these bullying types are highly correlated: individuals who are bullied offline are often also bullied online, and perpetrators often bully both offline and online (Kowalski et al., 2014; Modecki et al., 2014; Slonje et al., 2013). Furthermore, a summary of 131 quantitative studies showed that performing acts of cyberbullying is related to being a victim of cyberbullying ($r = .51$) and to being a victim of offline bullying ($r = .21$; Kowalski et al., 2014). Why victims may become bullies themselves, is an important question that seems unanswered thus far.

Furthermore, research on gender differences in cyberbullying behavior gives mixed results thus far (Kowalski et al., 2014; Slonje et al., 2013; Tokunaga, 2010). Some studies found boys to be more likely to be cyberbullies (e.g., Calvete et al., 2010; Fanti, Demetriou, & Hawa, 2012), whereas other studies showed that girls more often become cyberbullies than boys (e.g., Kowalski & Limber, 2007), and yet other studies did not find a gender difference in cyberbullying behavior (e.g., Den Hamer & Konijn, 2015; Hinduja & Patchin, 2008; Lonigro et al., 2014; Smith et al., 2008).

In our own research and compared to the 16% and 17% of bullies in meta-analyses of Hinduja and Patchin (2012) and Modecki et al. (2014), we found rather high prevalence rates of cyberbullying perpetration: in our cross-sectional study, 48.4% of boys and 36.0% of girls had ever cyberbullied someone (Den Hamer, Konijn, & Keijer, 2014). In our longitudinal study, 33.5% of boys and 24.4% of girls had ever performed acts of cyberbully (Den Hamer & Konijn, 2015; Den Hamer, Konijn, & Aartsen, under review). We measured cyberbullying behavior using the often applied Cyberbullying Questionnaire (CBQ; Calvete et al., 2010), which we updated according to modern smartphone technology used with adolescents (Den Hamer et al., 2014). We applied a "lifetime" framing reference, thus asking participants if they had ever performed certain cyberbullying behavior, such as sending hurtful messages through e-mail

or mobile phone, or broadcasting other people's secrets online. Participants could indicate whether they never, incidentally, several times, often, or very often performed this behavior. The word "bully" was not mentioned in our questionnaire, although probably all participants understood that the survey concerned cyberbullying. Although these prevalence rates are based on a frequency criterion of 'happened once or more often', all relational and predictive analyses were conducted using a continuous scale of cyberbullying ("1 = never" to "5 = very often") instead of a dichotomous scale ("cyberbully: yes/no"). Detailed information on the methodologies can be found in Den Hamer et al. (2014), Den Hamer and Konijn (2015), and Den Hamer, Konijn, and Aartsen (under review).

In sum, cyberbullying behavior occurs mostly among adolescents, among both boys and girls, and an overlap exists between offline and online bullying. An important question that arises from the overlap between victims of bullying behavior and being a bully oneself, is what factors underlie becoming a cyberbully.

Becoming a Cyberbully

What moves a youngster to become a cyberbully? Research showed that several characteristics could predict cyberbullying behavior. One of the most common motives for cyberbullying is anger (Gradinger, Strohmeier, Schiller, Stefanek, & Spiel, 2012; Lonigro et al., 2014; Patchin & Hinduja, 2010). Other known predictors of cyberbullying behavior are being an offline bully (e.g., Fanti et al., 2012; Modecki et al., 2014; Perren & Gutzwiller-Helfenfinger, 2012; Sticca, Ruggieri, Alsaker, & Perren, 2013), low levels of empathy (e.g., Ang & Goh, 2010; Steffgen, König, Pfetsch, & Melzer, 2011), and high levels of narcissism (e.g., Ang, Tan, & Mansor, 2010).

However, not much is known about the chain of events that lead to performing acts of cyberbullying behavior (Slonje et al., 2013). Some scholars suggest that some adolescents perform acts of cyberbullying because they are victims of bullying themselves (offline or online; Slonje et al., 2013). Indeed, the link between victimization and being a perpetrator of cyberbullying is supported by many studies (e.g., Ak, Özdemir, & Kuzucu, 2015; Bauman, 2010; König et al., 2010; Kowalski et al., 2012; Patchin & Hinduja, 2010; Smith et al., 2008; Sontag et al., 2010; Wong et al., 2014; Wright & Li, 2012, 2013; Ybarra & Mitchell, 2004; Yilmaz, 2011). For example, cybervictimization was the main predictor of cyberbullying behavior in one study (Bauman, 2010). Other studies

have found that being bullied (either offline or online) was longitudinally related to performing cyberbullying behavior 6 months later (Wright and Li, 2012, 2013).

One possible explanation for this relationship between being a victim and being a perpetrator of cyberbullying is that performing acts of cyberbullying can serve as a form of revenge (Hinduja & Patchin, 2014; König et al., 2010; Sontag et al., 2010; Ybarra & Mitchell, 2004). Other scholars have proposed that the relation between victimization and cyberbullying behavior may be explained by the General Strain Theory (Ak et al., 2015; Wright & Li, 2012, 2013). The General Strain Theory suggests that individuals who experience strain, will have increased levels of anger or frustration and some may use deviant behavior as a reaction to these negative emotions (Agnew, 1992). There are three sources of strain: 1) failure to achieve positively valued goals, 2) removal of positively valued stimuli, and 3) experiencing negatively valued stimuli (Agnew, 1992). This theory predicts that victims of bullying experience strain (i.e., being bullied as experiencing a negatively valued stimulus), which instigates anger or frustration and could subsequently lead to performing deviant behavior, such as cyberbullying behavior. Cyberbullying behavior could possibly give these victimized adolescents a feeling of power (Patchin & Hinduja, 2010). In fact, several studies showed that (cyber)victimization induces feelings of anger or frustration, supporting the idea that being bullied is a source of strain (Hay et al., 2010; Lonigro et al., 2014; Ortega, Elipe, Mora-Merchán, Calmaestra, & Vega, 2009; Wallace, Patchin, & May, 2005). As mentioned, others showed that anger is one of the main predictors of cyberbullying behavior (Gradinger et al., 2012; Lonigro et al., 2014; Patchin & Hinduja, 2010). Linking these findings makes it plausible that the relation between victimization and cyberbullying behavior could be explained by experiencing feelings of anger or frustration. Only recently, in addition to our own study (Den Hamer et al., 2014), a study investigated this full sequence of victimization, anger, and cyberbullying behavior, and showed that victimization indeed induced levels of anger, which was subsequently related to becoming a cyberbully (Ak et al., 2015).

The General Strain Theory is an important step toward insights into the underlying processes in the relation between being victimized and becoming a perpetrator of cyberbullying oneself. However, we argue that there is another important variable in this chain of events in being bullied, experiencing increased levels of anger and frustration and becoming a cyberbully. That is, we argue in the following that this process will be reinforced by adolescents' media exposure.

The Role of Media in Cyberbullying Behavior

Media are omnipresent in adolescent life (Konijn, Veldhuis, Plaisier, Spekman, & Den Hamer, 2015). Adolescents between 11 and 14 years old spend more than eleven hours a day using 'old' (e.g., television, magazines) and 'new' (e.g., online games, social networking sites) media (Rideout, Foehr, & Roberts, 2010; Strasburger et al., 2013). Only one of the available meta-analyses on cyberbullying behavior briefly mentions the possible influence of media exposure within cyberbullying behavior, and suggests that more research is needed on this topic (Kowalski et al., 2014).

We propose that media exposure plays an important part in the underlying processes of being victimized (online or offline), getting angry or frustrated, and becoming a cyberbully oneself. Previous research indicates that angry adolescents could show an increased attraction to violent media outlets, possibly in the belief to vent their anger (Arnett, 1996; Flammer & Schaffner, 2003; Olson, Kutner, & Warner, 2008; Olson et al., 2007; Plaisier & Konijn, 2013). For example, in one study, 45.4% of adolescent boys and about 30% of girls used violent video games as a way to "get their anger out" (Olson et al., 2007). A second possible reason for turning to violent media when feeling angry is the search for attractive role models. An important part of adolescence is finding an independent identity, in which media figures can serve as heroes to look up to (Konijn, Nije Bijvank, & Bushman, 2007). In violent media, adolescents can find numerous role models that show how to deal with anger, mostly by behaving aggressively (Konijn et al., 2007). A victimized adolescent, who has become angry because of this victimization, could possibly turn to media to find out how other people cope with anger and feelings of rejection. This is supported by research showing that social rejection led to an increased attraction toward antisocial and risk behavior media content (Plaisier & Konijn, 2013). Antisocial and risk behavior media content portrays behaviors that count as antisocial (e.g., stealing, swearing, fighting) and risky (e.g., binge drinking or taking drugs). This type of media content also incorporates violent content, which is antisocial behavior. Given that media portraying antisocial and risk behavior content is highly popular among youth (Brown & Witherspoon, 2002; Strasburger, 2009; Strasburger, Jordan, & Donnerstein, 2010), it seems overly narrow to merely investigate the role of *violent* media in cyberbullying behavior and therefore, we decided to include other antisocial and risk behaviors as shown in the media. We hypothesized that adolescents who are victims of bullying would have increased levels of anger and frustration, which

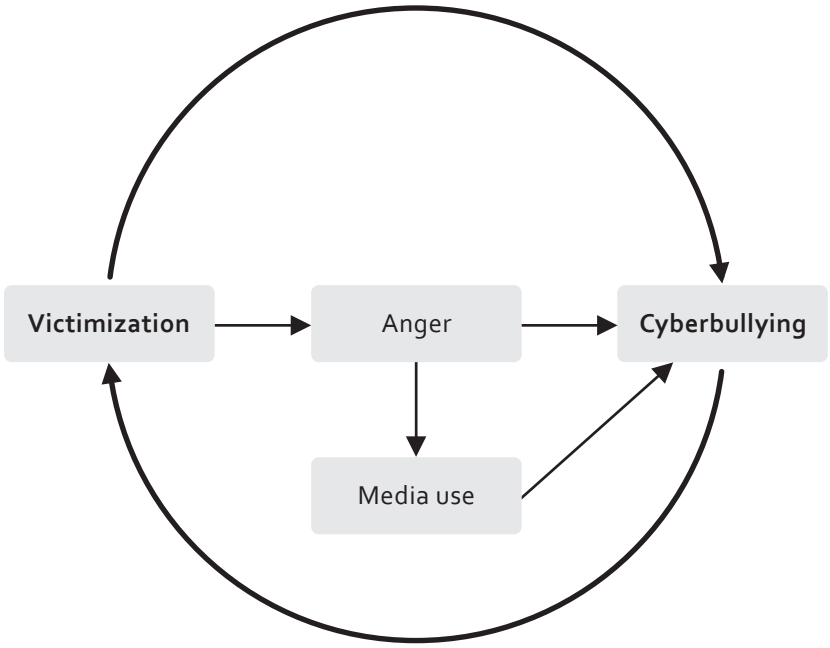

Figure 1. The Cyclic Process Model.

subsequently instigates an increased attraction toward media with antisocial and risk behavior content, possibly in order to vent their anger or in search for attractive role models.

Furthermore, we argue that exposure to antisocial and risk behavior content stimulates cyberbullying behavior. Although debated, numerous studies have shown that exposure to media with violent content increases aggressive behavior (e.g., Anderson et al., 2010; Greitemeyer & Mugge, 2014; in adolescents: Konijn et al., 2007). This increase is well-understood and is explained by theories like the Social Cognitive Theory (Bandura, 2001), the Downward Spiral Model (Slater, Henry, Swaim, & Anderson, 2003), and the General Aggression Model (Bushman & Anderson, 2002). The Social Cognitive Theory claims that people learn vicariously through media exposure, that they model their own behavior in accordance with the behavior shown in the media, especially since this behavior is often rewarded in entertainment media (Bandura, 2001; Dal Cin, Stoolmiller, & Sargent, 2012; Konijn et al., 2007). The Downward Spiral Model (Slater et al., 2003) follows this line of thought and

suggests that exposure to violent media and aggressive behavior reinforce each other. That is, trait aggressive adolescents show a strong preference for violent media content, and high exposure to this type of media reinforces their aggressive behavior, which causes these adolescents to end up in a downward spiral of aggression (Slater et al., 2003; Slater, Henry, Swaim, & Cardador, 2004; von Salisch, Vogelgesang, Kristen, & Oppl, 2011). In addition, the General Aggression Model helped us understand how violent media exposure affects aggressive behavior. Moreover, the General Aggression Model showed how contextual and personality factors explain why some individuals may be more susceptible than others to the effect of violent media exposure on aggressive behavior (Bushman & Anderson, 2002). Following this rationale, it seems plausible that a relation exist between exposure to media with antisocial and risk behavior content and becoming a perpetrator of cyberbullying behavior.

Support for our notion that media with antisocial and risk behavior content would reinforce cyberbullying behavior can partly be found in the results of previous research, showing that exposure to violent media content relates to (cyber)bullying behavior. For instance, two studies demonstrated that exposure to media with violent content related to offline bullying perpetration (Kuntsche, 2004; Lee & Kim, 2004). Results of a survey among over 4000 adolescents (mean age of 13) in Switzerland showed that violence on television and in games was related to offline bullying behavior (cyberbullying behavior was not measured in this study; Kuntsche, 2004). This was in line with a study that investigated bullying behavior among 560 Korean junior highschool students (mean age of 14) and showed that exposure to media violence (on TV and on the Internet) was related to offline bullying behaviors (cyberbullying behavior was not measured; Lee and Kim, 2004).

Although studies have investigated offline or traditional bullying, more recent research demonstrated that an association exists between violent media exposure and *cyber*bullying perpetration (Calvete et al., 2010; Chang et al., 2014; Dittrick, Beran, Mishna, Hetherington, & Shariff, 2013; Fanti et al., 2012; Lam, Cheng, & Liu, 2013). A cross-sectional study among over 1400 Spanish adolescents (mean age of 14) showed, among others, that violence on TV was positively related to cyberbullying behavior (Calvete et al., 2010). In addition, in a longitudinal study among over 1400 Cyprian adolescents (mean age 13), exposure to violent media content (on TV, internet, in movies and games) was related to higher cyberbullying perpetration rates one year later (Fanti et al., 2012). The same was concluded in a study among almost 400 Canadian parents

and their 500 children (mean age of the children was 13), in which both parents and children reported the child's attraction to violent video games (Dittrick et al., 2013). Children that were highly attracted to violent video games were more likely to perform offline and online bullying behavior. This coincides with the results of a study among almost 1300 adolescents (mean age of 15) from China, which demonstrated that exposure to violent video games was associated with both being a perpetrator and a victim of cyberbullying behavior (Lam et al., 2013). And finally, in a recent study, 2315 students (mean age of 15) from Taiwan were surveyed in a longitudinal design (one year in between waves), and results showed that exposure to media violence (on TV, in newspapers, on the Internet and in online games) predicted later cyberbullying behavior (Chang et al., 2014).

This enumeration of research that examined the link between media exposure and (cyber)bullying behavior shows that most studies solely focused on one or two media outlets (exceptions are Chang et al., 2014; Fanti et al., 2012) and only investigated the impact of *violent* media content on cyberbullying behavior. However, we believe that it is important to broaden the scope toward media content portraying antisocial and risk behaviors in addition to aggression and violence. To do so, we developed an instrument to measure exposure to media with antisocial and risk behavior content, the Content-based Media Exposure Scale (C-ME; Den Hamer, Konijn, Plaisier, et al., under review). The C-ME assesses the role of exposure to media with antisocial and risk behavior content on adolescents' cyberbullying behavior.

In sum, we integrated the relevant factors that appear to explain the relation between being victimized and becoming a cyberbully oneself into a theoretical model, named the Cyclic Process Model (visualized in Figure 1). This model specifically includes media use among youngsters, for which a content-based media exposure scale has been developed and validated. The Cyclic Process Model will be further elaborated in the next section.

The Cyclic Process Model of Cyberbullying Behavior

The Cyclic Process Model aims to disentangle the underlying processes between being bullied (either online or offline) and becoming a cyberbully. Based on the extant literature discussed in the above, we hypothesized that two processes would play a role in this relation: 1) feelings of anger or frustration following victimization, and 2) exposure to media with antisocial and risk behavior content. The Cyclic Process Model proposes that a victimized adolescent will get angry or frustrated, will then try to vent these negative feelings by turning

to media with antisocial and risk behavior content, which will stimulate or lower the threshold to bully others in cyberspace. Hence, these adolescents get caught up in a cyclic loop because cyberbullying behavior often results in being bullied again (Walrave & Heirman, 2011; Wright & Li, 2012, 2013). One study actually showed that cyberbullying others was the main predictor of being cyberbullied oneself (Livingstone, Haddon, Görzig, & Ólafsson, 2010). Since cyberbullying behavior peaks during adolescence and media with antisocial and risk behavior content is highly popular among them, we tested the Cyclic Process Model among this age group.

Outline of the Dissertation

This dissertation presents four studies that have tested the underlying processes of being bullied and becoming a cyberbully. We proposed that anger and media exposure are important factors in the relation between victimization and cyberbullying behavior (see Figure 1 for a visualization of the Cyclic Process Model).

Before presenting the results of testing the Cyclic Process Model, **Chapter 2** describes the development and validation of the Content-based Media Exposure Scale (C-ME), which was used to measure adolescents' exposure to media with antisocial and risk behavior content. The factor structure was investigated in three independent samples (N = 892, N = 748, N = 524) and the predictive and discriminant validity of the scale was assessed.

Chapter 3 describes the results of testing the Cyclic Process Model using cross-sectional data (N = 892). Given that most research in cyberbullying behavior is descriptive in nature, using cross-sectional data, there is an urge for longitudinal research that could shed light onto the causal chains in cyberbullying behavior. Therefore, after testing the Cyclic Process Model in a cross-sectional setting, we subsequently tested the model in a longitudinal design. In **Chapter 4**, the results of longitudinally testing the Cyclic Process Model are presented (N = 1005).

To fully understand the hypothesized effect of exposure to media with antisocial and risk behavior content on cyberbullying behavior, we performed additional analyses on the short and long term effects of media exposure on cyberbullying behavior (again using the longitudinal data described in Chapter 4). **Chapter 5** describes the results of these analyses.

As a next step, we investigated whether this cyclic process of being bullied, becoming a bully and being bullied again could be broken. **Chapter 6** presents

the results of testing the role of emotion regulation strategies in this respect. Emotion regulation strategies can be used to alter unpleasant emotions (such as anger or frustration) after a stressful event (Garnefski & Kraaij, 2014). Using the longitudinal data of Chapter 4 and 5, we investigated whether adolescents who apply positive emotion regulation strategies (i.e., putting the event in perspective; accepting what happened; trying to learn from the situation; focusing on positive stimuli as a distraction; and refocusing on planning) would experience less anger or frustration after being victimized than adolescents who apply negative emotion regulation strategies (i.e., blaming others; blaming oneself; constantly reminiscing the event; and emphasizing the horror of the event). Also, we tested whether applying these emotion regulation strategies would affect adolescents' cyberbullying behavior.

In **Chapter 7**, the dissertation concludes with a summary of the findings, limitations, and challenges in view of future research.

Finally, in the **Appendix**, recommendations are given to parents and educators for dealing with cyberbullying behavior among adolescents.